

## Claims

[c1] 1. A hands-free amplifier for a hand-held communication device having a connector thereon, the hands-free amplifier comprising of:  
a main body;  
a substrate board inside the main body, wherein the substrate board has a signal connector with an opening end on the main body suitable for engaging with a connector on a hand-held communication device;  
a voice amplifier inside the main body, wherein the voice amplifier and the substrate board are electrically connected to transmit signals;  
a voice receiver inside the main body, wherein the voice receiver and the substrate board are electrically connected to transmit signals; and  
a power source electrically connected to the substrate board inside the main body to provide electrical power for driving the substrate board.

[c2] 2. The hands-free amplifier of claim 1, wherein the voice amplifier includes a loudspeaker.

[c3] 3. The hands-free amplifier of claim 1, wherein the voice receiver includes a microphone.

[c4] 4. The hands-free amplifier of claim 1, wherein the power source includes a replaceable battery pack.

[c5] 5. The hands-free amplifier of claim 1, wherein the power source includes a rechargeable battery pack.

[c6] 6. The hands-free amplifier of claim 1, wherein the hand-held communication device includes a mobile telephone.

[c7] 7. The hands-free amplifier of claim 1, wherein the substrate board further includes a voice control circuit for controlling the reception of the voice receiver and the transmission of the voice amplifier and adjusting voice volume.

[c8] 8. The hands-free amplifier of claim 1, wherein the power source includes a battery pack having at least one battery.

[c9] 9. A hands-free amplifier for a hand-held communication device having a connector thereon, the hands-free amplifier comprising of:  
a main body;  
a substrate board inside the main body, wherein the substrate board has a signal connector with an opening end on the main body suitable for engaging with a connector on a hand-held communication device;  
a voice receiving/amplifying device having electrical signal connection with the substrate board inside the main body; and  
a power source electrically connected to the substrate board inside the main body to provide electrical power for driving the substrate board.

[c10] 10. The hands-free amplifier of claim 9, wherein the voice receiving/amplifying device includes a loudspeaker having both voice-amplifying and voice-receiving capabilities.

[c11] 11. The hands-free amplifier of claim 9, wherein the power source includes a replaceable battery pack.

[c12] 12. The hands-free amplifier of claim 9, wherein the power source includes a re-chargeable battery pack.

[c13] 13. The hands-free amplifier of claim 9, wherein the hand-held communication device includes a mobile telephone.

[c14] 14. The hands-free amplifier of claim 9, wherein the substrate board further includes a voice control circuit for controlling the reception of the voice receiver and the transmission of the voice amplifier and adjusting voice volume.

[c15] 15. The hands-free amplifier of claim 9, wherein the power source includes a battery pack having at least one battery.